

IN THE SPECIFICATION:

Paragraph beginning at line 10 of page 19 has been amended as follows:

The configuration and arrangement positions of the flat groove portions 17 are determined such that they communicate with the vane back pressure chambers 14 in the suction and compression strokes of the vanes 15 depending upon the rotating position of the rotor 11, and the flat groove portions 17 together with the back pressure chambers 14 define a back pressure space. The other portion of the oil passage 31 communicates with high pressure oil supplying holes 18a formed in the inner surface of the rear side block 7 so that oil may be supplied without passing through the gap between the rotor shaft 10 and the bearing. The section from the oil sump 30 side opening of the oil passage 31 to the high pressure oil supplying holes 18a constitutes a first high pressure oil passage. The configuration and arrangement positions of the high pressure oil supplying holes 18a are determined such that they communicate with the vane back pressure chambers 14 in the discharge stroke of the vanes 15 depending upon the rotating position of the rotor 11. Further, the flat groove portions 17 and the high pressure oil supplying holes 18a are formed in a positional relationship

which establishes no communication between them through the back pressure chambers 14 rotating with the rotation of the rotor 11.

Paragraph beginning at line 14 of page 20 has been amended as follows:

As shown in Figs. 4 and 5, the high pressure oil supplying support passage 32 has in the oil separating block 25 a valve hole 34 extending in a direction crossing the supplying passage 32, and a spool-shaped spool valve element 35 with a communication groove 35a in the outer peripheral surface thereof is arranged movably in the valve hole 34. Connected to the valve hole 34 on one end surface side of the spool valve element 35 is a high pressure oil supplying passage 34a so that the pressure of high pressure oil may be imparted thereto, and connected to the valve hole 34 on the other end surface side of the spool valve element 35 is a middle pressure oil intake passage 34b communicating with a middle pressure oil intake hole 17b open into the flat groove portions 17. That is, the differential pressure of the high pressure oil and the middle pressure oil is applied to the spool valve element 35. Further, a coil spring 37 imparting an elastic force to the spool valve element 35 against the high oil pressure is arranged in the valve hole 34 as an

elastic member. The pressure-responsive opening/closing valve of the present invention is constructed as described above.

Paragraph beginning at line 10 of page 22 has been amended as follows:

In the above-described condition, as the rotor 11 rotates, middle pressure oil is supplied from the flat groove portions 17 to the back pressure chambers 14 during the transition of the vanes from the suction to the compression stroke, and, in the discharge stroke, high pressure oil is supplied from the high pressure oil supplying holes 18a to the back pressure chambers 14. Further, during the transition from the compression to the discharge stroke, high pressure oil is supplied from the high pressure oil supplying support hole 33 to the back pressure chambers 14. At this time, the back pressure chambers 14 temporarily communicate with the high pressure oil supplying support hole 33, and also with the flat groove portions 17, with communication being established between the high pressure oil supplying support hole 33 and the flat groove portions 17 through the back pressure chambers 14. As a result, high pressure oil flows into the flat groove portions 17 from the high pressure oil supplying support hole 33 through the back pressure chambers ~~17~~ 14, and the pressure of the oil in the flat groove portions 17 increases. Thus, in

the process in which oil is supplied from the flat groove portions 17 to the back pressure chambers 14 of the back pressure space, the pressure imparted is increased, and the extruding force for the vanes 15 is strengthened, whereby even at the initial start of the gas compressor, the vanes 15 project quickly to enable the compressor to function at an early stage, and noise generation due to chattering is also prevented. Further, even during low speed rotation of the rotor 11, it is possible to impart proper extruding force to the vanes 15, and to prevent noise generation due to chattering at the same time.